SATURDAY, SEPTEMBER 6, 1873.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON A CASE OF LIGATION OF THE COMMON CAROTID ARTERY, FOR THE RELIEF OF AN ENCEPHALOID TUMOR ON THE HEAD.

Delivered at the Jefferson Medical College.

BY PROF. PANCOAST.

Reported by FRANK WOODBURY, M.D.

GENTLEMEN: This young man of eighteen is in a truly deplorable condition. He is brought to us by his father, from the interior of the State, hoping that we may be able to devise means of relieving him of this immense tumor, or at least of rendering his existence more tolerable and of prolonging his life. The tumor involves, or rather projects from, the entire right side of the head. The right eye is closed and the ball drawn upward and outward; the ear is distorted; while the prominent, pulpy mass of the tumor is discharging profusely offensive, unhealthy pus, and occasionally bleeds freely from its ulcerated surface.

A clerk in a country store, he possessed excellent health until seven months ago, when he noticed a small swelling under the temporal fascia, for the appearance of which he could assign no cause. This rapidly developed into a tumor as extensive as the temporal fascia itself, and is still enlarging. A large mass was removed from this region, a short time ago, by a good country surgeon, but without controlling the development of the tumor or arresting its growth.

This is a specimen of the encephaloid or cerebriform tumor, known commonly as children's cancer, having rather less vascularity than the ordinary fungus hæmatodes. This variety of malignant growth rapidly attains great bulk, the cell-activity, as regards rapid-developing power, resembling that of the human ovum. Towards the end, the vessels attain a large size, but not ordinarily so great as in fungus hæmatodes, in which the veins may, in some of the worst cases, become half the size of the little finger. These enlarged veins are apt to burst, giving the name of bleeding cancer to the tumor, and causing hemorrhages that sometimes can only be checked by the use of the actual cautery. The etiology and pathology of these affections are very obscure and unsatisfactory, but the morbid elements are supposed to be the white blood-cells abnormally developed. These are very numerous, and thus enlarged form mother-cells, which, bursting, release a progeny of nucleated cells possessing enormous vital energy, which rapidly increase in size and become mother-cells in their turn, getting their full development in the most malignant cases probably in one or two days. By the repetition of such processes we see how the monstrous growth of these diseases *may* be explained. These tumors sometimes attack the periosteum of the orbit, rapidly involving and protruding the proper structures of the eye and eventually destroying life. They may attack the mammary gland, especially after an unsuccessful attempt to remove a scirrhous mass; but their favorite seat is in the periosteum anywhere, even the dura mater of the skull, but especially about the thigh-bone, shoulder, or sternum. You saw in this room, a short time ago, a case in which we amputated at the shoulder-joint, on account of a large tumor of this kind commencing in the periosteum at the upper end of the humerus.

The tumor in the case before us is steadily increasing in size, has become of late the seat of a violent, throbbing pain, and there is increasing hemorrhage from its ulcerated surface. The patient, recently, has also had strong convulsions on several occasions. As he is now well rested from his journey, and has been otherwise carefully prepared for the operation, I will to-day ligate the right primitive carotid artery, not in the expectation of curing the disease, but in the hope that by cutting off the supply of blood from the tumor we may decrease the rapidity of its growth, prevent or diminish the convulsive paroxysms, reduce the tendency to hemorrhage, and thus prolong the patient's life. Such cases offer the surgeon a narrow line of duty: on one hand, he sees the possible dangers that may ensue upon the operation,—the usual risk of hemorrhage from the ligation of large vessels, to which is added the danger of serious injury to the brain from the sudden diminution of its blood-supply; while on the other hand he looks to the prospect of relief, and is inexcusable if he neglects to operate when the case requires it. On account of the free anastomosis in the circle of Willis, the cerebral vessels, after this operation, usually soon accommodate themselves to the altered circulation, and the nutrition of the brain is, generally, not materially impaired. Indeed, both the primitive carotids have been ligated within an interval of one or two days, followed by the recovery of the patient, in some recorded cases; but, if they were to be tied in quick succession, fatal syncope might be expected from such a grave disturbance of the cerebral circulation. In old persons paralysis might result from the ligation of only one of the trunks, manifesting itself suddenly, or produced gradually by softening of the brain from impaired nutrition; for in them the capillary vessels are weakened and often diseased, and are unable to establish the collateral circulation as readily as in younger persons.

In tying this artery the surgeon should not stand above the head of his patient, but at the side; for, as he naturally works towards himself, he would, in that position, be likely to place the ligature too high up. The danger of bleeding, after the ligature comes away, is not from the *cardiac* extremity of the divided vessel, because the trunk, having no branches, is soon filled with a solid coagulum, but from its *distal* side; and the nearer to its point of bifurcation that this artery is tied, the greater is the danger of a recurrent hemorrhage, which sometimes diffuses itself in a sheet between the cervical

muscles. Nor should the ligature be placed too low; because the vessel is there covered by three layers of muscles, and, on the left side, by the internal jugular vein.

The point most favorable for the operation (which, as the patient is ready, I will now perform) is on a line with the middle part of the larynx. The external incision passes along the inner edge of the sterno-mastoid muscle to the middle of the neck. Taking up and dividing each layer of fascia on the grooved director, and separating the muscles, the sheath of the vessels is seen, with the descendens noni nerve running obliquely inwards upon its outer and front surface. We now raise the sheath a little with the forceps, and open it on the inner side; the artery is then gently loosened in its sheath, on either side, with the grooved director. The director is then passed from without inwards under the vessel, and the ligature passed, with an eyed probe, along the groove and around the artery. I did not see either the pneumogastric nerve or the jugular vein, nor did I desire to. (The operation was done in a little less than three minutes.)

In those cases in which the surgeon finds that the trunk bifurcates lower down than usual (as it does in people with long necks), he should seek a lower point by extending his incision downward, or, if this is impracticable, either ligate both branches separately, or tie only the one which by compression seems to influence the circulation in the morbid growth.

Seventeen days after the delivery of the above, Prof. Pancoast brought the man again before the class, read the following extracts from his note-book, and remarked as given below:

"(Three days after the operation.) The throbbing pain has entirely disappeared from the tumor, and the patient has had no convulsions or subsequent hemorrhage. He lives on beef-tea and milk, and feels much better since the operation.

"(Fourteenth day.) The ligature came away on the tenth day, the wound has healed, and he has had no hemorrhage. The tumor is much smaller from the lessened supply of blood, and is free from beating pain."

"The marked improvement that has taken place in this case, gentlemen, encourages me to still further attempt the reduction of the tumor by inducing part of it to slough away. Sir James Paget, of London, employs arrows of soft wood dipped in melted chloride of zinc paste; these are inserted, radiating towards the centre of the tumor at the line where you wish to establish the plane of demarcation. For this purpose, however, I prefer a mixture of one part of chloride of zinc with four of wheat-flour, made with water into a dough, from which little spears with barbed heads are cut, and afterwards dried. Having prepared a number of these, openings are made in the tumor with the bistoury and the arrows inserted, being retained by the barb on the head. Having girdled the tumor with these, we may expect to detach a large slough. While waiting for separation, the surface may be dusted twice daily with carbolated lime, to allay the fœtor. We have used this preparation upon it for some days with considerable advantage."

(The patient shortly after returned to his home with the tumor diminished in size nearly one-half, and comparatively free from suffering.)

ORIGINAL COMMUNICATIONS.

PHYSIOLOGICAL ACTION OF THE BROMIDE OF POTASSIUM.

BY DR. H. C. WOOD, JR.,

Clinical Lecturer on Diseases of the Nervous System at the University of Pennsylvania.

BROMIDE of potassium administered to frogs in minute doses produces as a first result a tetanoid condition, in which there may be very marked opisthotonos. After a short time this stage of muscular excitement gives way to one of great muscular relaxation and total abolition of reflex actions. Voluntary movements, however, often occur during this period, and the frog, which has been lying limp and apparently dead, will startle the observer by a sudden vigorous leap. This fact has been so frequently witnessed* that there can be no doubt of its truth.

Very early in the paralytic stage the respiratory movements are affected, and they gradually grow less until their final arrest. When a very large dose of the bromide is given, death may be induced by paralysis of the heart;† but after a small toxic dose this viscus continues beating long after the cessation of breathing. If the drug be given by an injection practised in the vicinity of the heart, sudden cardiac arrest always occurs.

Upon mammals‡ the bromide acts very much as upon frogs, inducing progressive paralysis, depression of temperature, and death by asphyxia when given in small poisonous doses, and great disturbance of the circulation with finally diastolic arrest of the heart when very freely administered.

When a solution of the bromide is applied locally to the heart, it produces instantly marked lessening of its action, and, if in sufficient amount and concentration, even instantaneous diastolic arrest.§ Upon the voluntary muscles it acts in a similar manner when similarly applied. If its solution be not too concentrated or abundant, however, the muscle of the frog is first thrown into a tetanic spasm;‖ and Dr. Purser suggests that the tetanic symptoms seen in the frog poisoned by the bromide of potassium are due to this action on the muscles. On the nerve-trunks and also on the nerve-centres the bromide acts when applied locally as it does upon the muscles.¶

* The following observers have noted this persistence of voluntary movements: J. M. Purser, Dublin Journal of Medical Sciences, xlvii. p. 324, 1869; Lewisky aus Kazan, Virchow's Archives, xlv. p. 191, 1869; J. V. Laborde, Archives de Physiologie Normale et Pathologique, t. i., 1868, 423, and Comptes-Rendus, t. lxv., 1867; MM. Martin-Damourette et Pelvette, Bulletin Thérapeutique, lxxiii., 1867, 249.

† Albert Eulenberg and Paul Guttmann, Virchow's Archives, xli., 1867.

‡ Bulletin Thérapeutique, lxxiii. 256; Virchow's Archives, xli. 97.

§ Virchow's Archives, xli. 101.

‖ Dublin Journal, xlvii. 325.

¶ Bulletin Thérapeutique, lxxiii. 253, 290; also Dr. Amory, The Physiological and Therapeutical Action of the Bromide of Potassium, Boston, 1872, Part II., p. 147.

In general poisoning by hypodermic injection of the bromide this local action is often very manifest, and paralysis of the part into which the solution has been thrown follows very rapidly upon the injection.

It is, therefore, evident that the bromide of potassium in sufficient quantity is a deadly poison to all the higher animal tissues. To therapeutists, however, the interest centres about its action when exhibited in doses just sufficient to take life, or in still smaller quantities.

The persistence of voluntary movement in the frog after the abolition of reflex actions shows that the influence of the drug is not chiefly exerted upon the cerebral centres of motor impulse, nor upon those cells of the cord which originate movement, but upon either the afferent nerves or upon those portions of the cord which transmit the impulse from these nerves to the cells presiding immediately over motion. This is confirmed by some experiments of Lewisky, in which it was found that previous separation of the cord from the cerebrum had no influence upon the action of the bromide. Both he and Purser also found that death occurred from small doses before the motor-nerve trunks and the muscles had lost their irritability.* This being so, the question arises whether the paralysis be spinal or due to paralysis of the peripheral afferent nerves. There is an apparent conflict in the evidence upon this point. Eulenberg and Guttmann (*loc. cit.*, p. 103) found that when access of the poison was prevented to one or more limbs by tying the arteries, reflex actions were abolished in these parts as rapidly as in others. Similar results have been obtained by Lewisky, by Roberts Bartholow,† by Purser‡ (*loc. cit.*, p. 326), and by Laborde (*loc. cit.*, p. 434). The latter observer has also found that electrical stimulation of a nerve high up will cause violent spasms in the muscles directly supplied by it, when it is unable to excite the slightest reflex tremor. On the other hand, Damourette and Pelvette assert a contrary result. Unfortunately, they do not give the details of their experiments. They state, however (p. 247), that if the lumbar plexus of vessels be tied before the poisoning, the fore-feet lose their reflex activity before the hinder. There are two possible methods of reconciling their results with those of the other observers. In some way the operation may have interfered with the circulation in the lower part of the cord, and consequently the poison have reached more freely the upper part of it and acted first upon it. Again, if the injection was, as is very probable, thrown into the anterior portion of the body, the poison may have reached the anterior extremities in so concentrated a form as to have acted as it were locally upon their nerves and muscles. The same observers in another portion of their memoir show that the solutions of these salts travel by imbibition; and this and their local action seem to me to be the cause of the differences of experimental results. It seems well established that cutaneous anæsthesia in greater or less degree accompanies the loss of reflex activity; for, as Dr. Purser says, a poisoned animal quite able to jump submits to pinching, pricking, burning, etc., without moving. Eulenberg and Guttman have noticed the same thing in some rabbits. Damourette and Pelvette (*loc. cit.*, p. 247) have noticed a condition in which electrical stimulation of a nerve-trunk produced marked reflex action although no excitement of the skin supplied by the afferent fibres of the nerve was capable of doing this, showing that the extremities of the sensitive nerves are affected before the trunks.

The evidence is, I think, sufficient to prove that bromide of potassium affects all parts of the nervous system of the lower animals, but that the cerebrum, the motor tract of the cord, and the efferent nerves are the last portions to be affected; that the most sensitive to its action is the receptive portion of the cord,—that which receives and transmits reflex impulses,—and next to this and perhaps almost equally susceptible with it are the peripheral ends of the afferent nerves.

Upon the cerebrum of the higher animals the bromides undoubtedly exert an influence; but I am not cognizant of any researches sufficiently elaborate to show its extent or nature.

It is well established that large toxic doses of the bromide exert a direct paralyzing action on the heart, lessening both the force and frequency of the beat, and finally causing diastolic arrest. Dr. J. G. Schouten§ found that during the slow injection of a two per cent. solution into the vena cava of a rabbit the cardiac systole grew slower, the diastolic pauses longer, and finally the heart stood still, exhibiting only fibrillary contractions of its walls. The same observer is, so far as I know, the only one who has made manometrical studies of the action of small doses of the drug. He found that such amounts of the bromide administered hypodermically or by the stomach always produced increased pulse-frequency with lessened arterial pressure. His experiments were, however, not carried far enough to demonstrate either how these two changes are brought about, or the relations of the drug to the vaso-motor nerves. Much has been predicated upon the theory which asserts that bromide of potassium causes vaso-motor spasm. No decisive proofs have, however, yet been offered of the truth of this favorite dogma. The evidence so far brought forward is as follows. Lewisky found that if the toes of two frogs—one poisoned, the other not—were cut off, the unpoisoned frog bled much more freely than the other. This experiment has been confirmed by Dr. Amory; it, however, evidently does not prove the existence of vaso-motor spasm, but only of a lessened activity of the circulation, which may be of cardiac origin.

According to Damourette and Pelvette (*loc. cit.*, p. 249), when the interdigital membrane of the frog is watched during poisoning there is seen at first very often an exceedingly brief period of increased cir-

* Confirmed by Saisson, Schmidt's Jahrbücher, Bd. cxliii. p. 17.

† Bromides: Their Physiological Effects. Providence, 1871.

‡ From the wording of his memoir, it is, however, doubtful whether Purser performed the experiment himself.

§ Archiv d. Heilk., xii. 2, p. 97, 1871; Schmidt's Jahrbücher, Bd. cliv. p. 11.

culation, but in a very short time the latter becomes much slower. Dr. Meuriot* asserts that it can readily be seen by the aid of the microscope that this slowing of circulation is due to a contraction of the capillaries, and especially of the small arteries, whose lumen may even be obliterated. Dr. Saisson† also asserts that he has witnessed a similar phenomenon in the tongue of the frog, and Dr. Hammond and Dr. Amory state that they have seen it in the brain of the dog. On the other hand, Dr. Purser (*loc. cit.*) and Dr. F. B. Nunneley‡ assert that the vessels in the frog's web are not affected by bromide of potassium given hypodermically.

My own studies of the action of various poisons upon the vessels of frog's web have yielded such varying and unsatisfactory results as to make me hesitate in accepting evidence of this nature unless otherwise corroborated. In the absence of manometrical studies, I think the most that can be fairly claimed is that our present knowledge renders it somewhat probable that the salt under consideration is capable of producing vaso-motor spasm. The further deduction that the nervous symptoms induced are secondary to and produced by this spasm is wholly gratuitous, unproven, and improbable. The action of the bromide when applied locally to the bared nerve demonstrates that it acts directly upon nerve-tissue. Further, the absolute anæmia of the bloodless "salt frog" produces no such nervous symptoms as does even a non-toxic dose of the bromide; and the direct experiments of Dr. A. Weil§ have shown that in the frog the complete abolition of circulation has no effect upon the spinal marrow during the first half-hour. The proof is very strong that the drug acts directly upon the nervous tissues.

In warm-blooded animals, toxic doses of the bromide of potassium lower very decidedly the temperature. Although the point cannot be considered at all settled, it is probable that this lowering of temperature is due to a direct checking of tissue-changes. Dr. J. H. Bill‖ has found a constant decrease in the amount of carbonic acid eliminated after the ingestion of the salt. In his experiments the daily excretion of urea was not perceptibly affected; but Dr. Rabuteau found it slightly lessened,¶ as did also Dr. Bartholow (*loc. cit.*, p. 11).

When the blood is charged with the bromide, the salt probably escapes with all the secretions. It has been found by Voisin, Amory, Namias, Bill, etc., in the saliva and in the urine. Amory has also demonstrated its presence in the perspiration. In the body of a man who died whilst taking it, M. Namias** found it in all the liquids, as well as in the brain, liver, spinal cord, lungs, etc.

Elimination takes place to a certain extent through the skin, and to some extent through the intestinal mucous membrane also. Dr. Bill (*loc. cit.*, p. 25) always detected it in marked quantities in the fæces of men taking it; and H. Quincke†† found that when forty grains of the bromide of sodium were given to dogs with intestinal fistula, two and a half hours afterwards the intestinal juices were free from the bromides, which reappeared in from three to six hours. The salt escapes also through the kidneys. The rapidity of elimination seems to vary: thus, Amory recovered one-half of the amount ingested during the first and one-third during the second twenty-four hours, whilst Bill was not able to get more than one-eighteenth of it during the first day. Dr. Bill has frequently found the bromides in the urine two weeks after the last dose has been exhibited; and Dr. Rabuteau has seen its presence persist under similar circumstances for a month.

No case of acute poisoning with the bromide of potassium has been reported, and I have never seen a single dose of it produce any obvious effect; the results of the continuous employment of large doses of it, however, demonstrate that it acts upon man as upon the lower animals. When it is taken with sufficient freedom to accumulate in the system, a conjunction of phenomena known as *bromism* arises. The cerebral symptoms are a sense of mental weakness, heaviness of intellect, failure of memory, partial aphasia, great somnolence, and depression of spirits. With these there may be decided impairment of the sensibility of the mucous membranes and of the skin, so that titillation of the fauces may be without effect, and according to Puche even heat applied to the skin calls forth no complaint, and Huette‡‡ has seen in some cases absolute anæsthesia of the sclerotic conjunctiva. The sexual function is abolished. There is also very generally fetid breath, and an eruption of acne, which may indeed be very severe. Of course, in any individual case of bromism many of these symptoms may be wanting; but when the use of the remedy is persisted in, they all become developed in an intense degree. Professor Edward H. Clarke thus speaks of a case which came under his notice: "The fetid breath becomes nauseous; œdema supervenes on congestion of the uvula and fauces; the whispering voice sinks into aphonia; sexual weakness degenerates into impotence; muscular weakness becomes complete paralysis; reflex, general, and special sensations disappear; the ears do not hear, or the eyes see, or the tongue taste; the expression of hebetude becomes first that of imbecility, then that of idiocy; hallucinations of sight and sound, with or without mania, precede general cerebral indifference, apathy, and paralysis; the respiration, without the stertor of opium or alcohol, is easy and slow; the temperature of the body is lowered; as the bromism becomes more profound, the patient lies quiet in bed, unable to move or feel or swallow or speak, with dilated and uncontractile pupils, and scarcely any change of the color of his skin or face."

It is evident that upon man the bromide in large doses acts as a depressant, which, although affecting

* L'Étude de la Belladonne, p. 49.
† Schmidt's Jahrbücher, Bd. cxliii. p. 17.
‡ London Practitioner, vol. iii. p. 351.
§ Reichert's Archiv für Anatomie, 1871, p. 271.
‖ American Journal of Medical Sciences, July, 1868, p. 25.
¶ Gazette Hebdomadaire, 1869.
** Comptes-Rendus, tome lxx. p. 882.
†† Reichert's Archiv für Anatomie, xxxv. 158, 1868.
‡‡ Mémoires de la Soc. Biolog., 1850.

decidedly the circulation, acts especially upon the nervous system, depressing the cerebral functions, lowering the reflex excitability of the cord, and paralyzing the peripheral ends of the afferent nerves in the same order and degree as it does in the lower animals.

NOTES OF HOSPITAL PRACTICE.

PENNSYLVANIA HOSPITAL.

SERVICE OF DR. MORTON.

Reported by WILLIAM BARTON HOPKINS.

SUCCESSFUL HERNIOTOMY IN A CHILD OF TWENTY-EIGHT MONTHS.

L. A., æt. 2 years and 4 months, was admitted to the hospital in the evening of the 7th of July, 1873, with strangulated inguinal hernia on the right side. The hernia was congenital, and nothing had been done for its relief until six weeks previous to his admission, when a truss was applied, and it remained reducible until July 5, when he fell down-stairs, and on the 6th marked symptoms of strangulation presented themselves. On the 7th restoration was attempted, but unsuccessfully, when he was brought to the hospital, verging on collapse, very pale, with quick feeble pulse, constant sick stomach, and general prostration.

On examination, a scrotal tumor was found on the right side, very tender to the touch, with considerable abdominal swelling.

After etherization, taxis having failed to reduce the intestine, the ordinary operation was performed by Dr. Morton at 6 P.M. on the same day. A large piece of intestine was found in the scrotum, of a dark maroon color, and firmly constricted at the internal ring, which was found to be very small. It was impossible to reduce the mass by pressure alone, but, after careful and steady dilatation with the finger at the ring, the parts yielded, and the intestine was then replaced.

Five deep silver sutures, clamped with shot, held the parts in good apposition; quarter-grain opium suppositories were administered with teaspoonful doses of brandy every two hours, and a liquid nourishing diet.

The symptoms subsided immediately; rapid convalescence followed, and the child was discharged, quite well, July 19, twelve days after the operation.

Strangulated hernia in subjects so young must be rare. The youngest case requiring operation, on the records of the Pennsylvania Hospital, it appears, was a lad aged 13, who was admitted March 13, 1872, the strangulation having existed for four days before; he was operated upon on the day of his admission, and was discharged, cured, April 17, 1872.

Dr. Morton believes that in these cases there is no necessity for dividing the edges of the ring, dilatation with forceps or the finger, as in the case described, being quite sufficient.

BELLEVUE HOSPITAL, NEW YORK.

NOTES OF TREATMENT.

BRIGHT'S DISEASE.

IN this affection diuretics are employed, a favorite prescription on one division being,—

℞ Potass. bitart., ʒiv;
Inf. digitalis, ℥iv. M.
S.—ʒij—ʒiv t. d.

On another division a case is being treated by the administration of large quantities of water,—about six pints being given in twenty-four hours. Diminution of this quantity is followed by serious symptoms, which disappear when the amount is again increased. Inhalation of the vapor of ol. juniperi has been tried on another division, the effect in some cases being well marked, but negative in others. The bowels are kept open by occasional doses of Murchison's powder on one division, by elaterium on another. Iron and quinine are given as tonics; the tr. ferri chlorid. being preferred by some.

A favorite prescription on the second division is,—

℞ Ferri sulph. exsic., gr. ij;
Quin. sulph., gr. j;
Ext. gent., q. s. M.
S.—Pil. j t. i. d.

If there be much anasarca, strychniæ sulph. is sometimes added to the above. In ascites, stupes of digitalis infusion are placed over the kidneys occasionally with benefit.

If delirium or convulsions ensue, in addition to the use of eliminative remedies, as elaterium, hypodermic injections of Magendie's solution of morphia are given, with the object of lessening the sensibility of the nervous centres to the action of the blood-poison. This treatment, suggested by Prof. Loomis, seems to be efficient in a large proportion of cases. In uræmic coma, stimulating enemata, with the hot-air bath, are the means usually adopted.

DELIRIUM TREMENS.

In cases of injury complicated with this trouble, Dr. Griffith, of the third surgical division, is in the habit of giving as a drink, in twenty four hours, infus. artemisiæ absinth. Oij; also giving porter. On other divisions, chloral hydrate is given, associated with bromide of potassium, as in the following:

℞ Chloral-hydrat., ʒij;
Potass. bromid., ʒiv;
Aq. cinnamomi, ℥ij. M.
S.—ʒj q. i. h. until sleep occurs.

Usually only a few doses are required to produce this result.

CHOLERA INFANTUM.

If the disease have reached the cold stage, the best results are obtained by the administration of the "eau albumineuse," prepared by dropping the white of an egg in a teacup half full of water, gently stirring (not beating), until the albumen is dissolved. To this brandy is added, so that each drachm contains from two to five drops, varying with the age of the child. A teaspoonful is given every half-hour, the patient being also wrapped in blankets, and the surface stimulated by applications of ol. camphorat.

W. H. FARRINGTON, M.D.

ST. MARY'S HOSPITAL—DISPENSARY FOR NERVOUS DISEASES.

SERVICE OF CHARLES K. MILLS, M.D.

Reported by JOHN S. BAGG, M.D.

SPINAL ANÆMIA.

J. R. W., æt. 25, had been for three years a sufferer from various nervous and visceral disturbances, and for about two years of that time he had been unable to attend to any regular work, owing to the condition of his health. From the patient's account of his symptoms, his disorder had been protean in character, and he had been treated at intervals by different physicians for dyspepsia, heart-disease, cerebral congestion, general debility, etc.

The patient complained of an inability to concentrate his thoughts upon any subject, and of an almost constant feeling of uneasiness in the head, which some-

times seemed constricted, at other times light; but he was very little annoyed with headaches. Disturbance of the stomach was a prominent feature in the case. He was troubled nearly all the time with gastric flatulence and acidity, and a feeling of oppression in the epigastric region, and occasionally with pain in the stomach, and nausea. He was never constipated, but now and then had attacks of diarrhœa, and suffered frequently from abdominal pain and soreness, which he attributed to wind. Palpitations and pain over and about the region of the heart, probably intercostal neuralgia, were among the occasional symptoms. During the greater part of the last two years he had been subject to nocturnal emissions twice and three times weekly. He had difficulty in walking, from a feeling of weakness in the legs and of uncertainty of gait. He always felt better when lying down, and just after arising from the recumbent position. He stated that his mind was always in an irritable condition.

On examination of the spine, tenderness on pressure was found from the third to the tenth dorsal vertebra, most marked over the eighth and ninth; and there was tenderness also over the third and fourth lumbar vertebræ. Slight pain in the cord, chiefly in the upper dorsal region, was developed by percussion. The case was diagnosed to be one of anæmia of the posterior columns of the spinal cord.

Blisters over the seats of tenderness were ordered to be applied and repeated as soon as possible. The following prescription was given:

℞ Strychniæ sulphat., gr. j;
Ferri pyrophosph.,
Quiniæ sulph., āā ʒss;
Acid. phosph. dilut.,
Syrupi zingiberis, āā fʒij.—M.

S.—A teaspoonful to be taken three times daily, immediately after each meal.

The induced current was applied twice weekly to the muscles of the body and extremity. Exercise in the open air, and good nutritious diet, were also enjoined.

At the time of making this report the patient has been three weeks under the treatment just given, the blisters having been twice repeated. The palpitations, neuralgic and other pains, flatulence, acidity, nausea, and nocturnal emissions have ceased to annoy him. He experiences very little uneasiness in the head, and can walk a long distance without difficulty. He expresses himself as feeling better than he has done before for nearly three years. The same treatment will be continued.

CASES OF OVARIOTOMY.

BY WASHINGTON L. ATLEE, M.D.,

Of Philadelphia.

Reported by J. Ewing Mears, M.D., of Philadelphia.

Case 245.—Unilocular ovarian tumor—Incision four inches in length—Inveterate adhesions—Death on the ninth day.

November 8, 1871, Dr. Atlee visited, in consultation with Drs. Fay and Gemmill, Mrs. T. McC., an ignorant Irishwoman, living in a small shanty on the outskirts of Altoona, Pa. The patient could give no satisfactory account of her age; she appeared to be about forty years old. Menstruation commenced at the age of eighteen or nineteen, and has always been regular. She was married in 1868, and has had one child, now eighteen months old.

In 1866 the abdomen began to enlarge, the enlargement gradually increasing until Dr. Atlee saw the patient, when she was larger than a woman at full period of gestation. On examination, all the symptoms of a unilocular cyst were found to be present. The pelvis was free, the uterus was movable, and admitted the sound two and one-half inches.

Ovariotomy was performed, the following-named gentlemen being present: Drs. Gemmill, Fay, Findley, and Bell, of Altoona, Roller and Irwin of Hollidaysburg, Miller of Huntingdon, Clark of Bell's Mills, and Bloom of Martinsburg.

In this case, owing to the very extensive and firm adhesions which bound the cyst to the anterior wall of the abdomen, there was great difficulty in finding the line of demarcation. In some remarks appended to this report, Dr. Atlee directs attention to an unfailing test which he applies in these cases, and which prevents the occurrence of such an untoward accident as the extended separation of the parietal peritoneum.

The pedicle, which was not large, and was of good length, was secured in a three-quarter inch space of Dr. Atlee's clamp. The right ovary was examined and found healthy. The tumor was unilocular, involving the left ovary, and, with its contents, weighed twenty-five pounds.

During the four days succeeding the operation the condition of the patient was excellent, not an unpleasant symptom presenting itself; and this in spite of her wretched surroundings. During this time the pulse did not exceed ninety. Death occurred on the ninth day. Dr. Fay writes in reference to the case as follows: "For the first four days I thought she would recover; but such nursing I have never seen, and I hope never will see again. Septicæmia was, I think, the cause of her death."

Remarks by Dr. Atlee.—The above case illustrates one very important practical point in the operation of ovariotomy. It is this: *immediately after making the incision through the walls of the abdomen, the index finger should be passed up to the region of the umbilicus, and if it can be swept freely across from side to side it must be within the abdomen.* This, of course, is an easy matter when no adhesions exist. It is always possible in parietal adhesions, when the finger is inside of the peritoneum. It is not possible, without the most unwarrantable violence, when the finger is between the layers of the abdominal parietes. The non-observance of this rule has led to the separation of large portions of the peritoneal layer of the walls of the abdomen, even when no adhesions existed, the operator having mistaken the peritoneum itself for an adherent cyst-wall. When, however, parietal adhesions do exist, the mistake may be more excusable and more readily made, particularly in such a case as the one just related, where the peritoneum is thickened and more strongly incorporated with the cyst-wall than with the wall of the abdomen. The most convenient and infallible test of being within the abdomen is *the ability to freely move the finger to and fro past the umbilicus.*

TRANSLATIONS.

ON THE INFLUENCE OF ARTIFICIAL RESPIRATION IN STRYCHNIA-POISONING.

By Dr. Julius Rossbach. Translated from *Centralblatt für die Med. Wissenschaften*, May 31,

BY WM. ASHBRIDGE, M.D.

DR. ROSSBACH was induced to perform these experiments to ascertain the method in which strychnia acts upon animal organisms, by the fact that he was never able to confirm the statements of Leube in regard to the effect of artificial respiration in saving the lives of animals to whom poisonous doses of this drug had been given. The animals used for the experiments were rabbits, and the poison was administered hypodermically, by introducing it into the jugular

vein, and by the stomach. The results of the several experiments were as follows:

I. Hypodermic Injection of Strychnia.—0.001 strychniæ muriat. given to rabbits of the weight of 1000 to 1280 grammes did not excite convulsions nor increase the reflex irritability to any observable extent.

0.002 given to rabbits of 1180 to 1300 grammes' weight excited, after fifteen minutes, tetanic spasms; the animals, however, recovered without artificial respiration, which in fact seemed to have no influence upon the appearance of the convulsions or upon their duration or intensity.

0.00275 of the poison killed all rabbits from 1150 to 1310 grammes in weight, whether artificial respiration was employed or not.

0.003 was absolutely fatal for all animals ranging in weight from 1205 to 1419 grammes, whether artificial respiration was resorted to or not.

From these experiments, in which the poison was injected hypodermically, the conclusion would be drawn that neither the character nor intensity of the spasm was affected by artificial respiration, nor was it in a single instance able to save life, its only effect being to keep up the pulsations of the heart for an hour or two longer.

II. Introduction of Strychnia into the Jugular Vein.—0.0005 strychniæ muriat. injected into the jugular vein of rabbits weighing 1000 to 1290 grammes appeared almost without influence; no spasm was induced.

0.00075 strychniæ muriat. caused, at the end of five minutes, violent tetanic spasms whether artificial respiration was resorted to or not; but still it was not an absolutely fatal dose, since rabbits weighing 1170 to 1220 grammes survived it without artificial respiration, one of 1620 grammes lived with this aid, while a third, of 1350 grammes, died without it.

0.001 excited similar appearances to 0.003 given hypodermically, with the exception that even when the most intense apnœa had been previously induced, the convulsions followed almost instantly the introduction of the poison into the veins, but even after this dose many animals lived without artificial respiration.

0.00125 killed rabbits of 1400 to 1590 grammes almost immediately, whether artificial respiration was employed or not, even when intense apnœa had been previously caused.

III. Strychnia introduced in the Stomach.—0.001 strychniæ muriat. excited, in animals weighing 1200 grammes, but transient and slight manifestations.

0.002 killed animals of 1010 to 1350 grammes' weight, even when intense apnœa had been induced; artificial respiration was not able to save one life.

From this, the conclusion of Leube that the action of strychnia in the stomach is more intense than if given hypodermically, is confirmed.

Artificial respiration, however, has no influence either in maintaining the life of an animal poisoned with strychnia, or upon the intensity or duration of the convulsions. The movements, indeed, needed to produce inspiration often furnish the impulse for an outbreak of the spasms. The prolongation of life which it is possible to attain by artificial respiration must be understood to be but a duration of the heart's action for the space of a few hours; for the other signs of life, as, for example, irritability of the cornea, are always wanting, and the pulsations can only be noticed by the ear upon the breast of the animal.

The case is similar to the condition due to a section of the spinal cord high up: the animal is fatally injured, but the pulsations of the heart can be kept up by artificial respiration for some time, as a heart cut from the body under certain conditions can be kept pulsating.

The conclusion, then, is that as a means of saving life in strychnia-poisoning, in rabbits at least, artificial respiration is of no value.

SO-CALLED SEPARATION OF THE RETINA.

By R. Berlin. Translated from *Centralblatt für die Med. Wissenschaften*

BY WM. ASHBRIDGE, M.D.

In a short time Berlin had an opportunity of observing eight cases of injuries to the ball of the eye caused by blunt instruments, and in all these cases the prominent symptoms were the following:

1. Moderate diminution of the central intensity of vision, without any disproportionate involvement of the peripheral power of vision.
2. Rapid episclerotic injection.
3. Great resistance of the sphincter pupillæ to the action of atropia.
4. Characteristic, gyrated, whitish-gray cloudiness of the retina.

In regard to this last symptom, Berlin asserts that the diminution of the power of vision, as a rule, reaches its maximum only when the cloudiness of the retina has commenced its retrograde metamorphosis, and after the entire disappearance of this symptom it remains several days. The coming and going of the serous infiltration and cloudiness of the retina usually extends over seventy-two hours. About the same time was needed for the experiments made upon rabbits in which blows upon the cornea were made with a glass rod, for the appearance and disappearance of the same symptoms. If the blows are inflicted upon the sclerotic, analogous changes are found not only upon the adjacent parts of the retina, but also upon the part directly opposite. This last is accounted for by Berlin by the resistance of the walls of the orbit. The contraction of the retinal vessels following the injury was in no case followed by their enlargement. This fact, among others, is made use of by the observer to disprove the separation of the retina which is assumed to account for the diminution in the power of vision, and he supposes that this effect is due to the violence done to the trunk of the optic nerve.

The pathological conditions proved by Berlin in the eyes of the rabbits subjected to his experiments were: a serous infiltration, or cloudiness, plaiting of the retina, which could only be regarded as a secondary product due to a hemorrhage between the choroid and the sclerotic. Finally, it was observed that, without exception, in rabbits the cause of the cloudiness of the retina and the diminution of the power of vision were not proportional; and it is in the highest degree probable that this is also true for the human eye.

PARALYSIS OF THE LEFT LOWER EXTREMITY AND THE BLADDER, DUE TO A NEUROMA ON THE ROOTS OF THE FIRST TWO SACRAL NERVES OF THE LEFT SIDE.

Reported by Dr. Löwenfeld. Translated from *Wiener Med. Presse*

BY WM. ASHBRIDGE, M.D.

The patient, F. K., was admitted into the hospital September 11, 1872; was the wife of a mason; at the time of her admission into the hospital was 46 years of age, and gave the following history of her case:

Five weeks previously she had been attacked with moderate pains in the sacral region, which from time to time increased in severity and gradually extended down the left thigh; no cause could be assigned for their appearance. She was finally obliged to give up her household duties, since locomotion became so painful that she was compelled to remain in bed.

For some days previous to her admission she suffered also from dull pains and a feeling of tension in the lower part of the abdomen; her general condition in other respects was unaltered. In the year 1853, after her fourth confinement, she suffered from an attack of inflammation of the womb, which confined her to bed for three months, followed apparently by perfect recovery, and her menstruation had been normal and her health good up to this attack from which she was admitted. Upon admission, her pulse and temperature were normal; her body was small, but well nourished; the thoracic organs were healthy. At the lower part of the abdomen was a tumor the size of a child's head, due to the distended bladder, from which nineteen hundred cubic centimetres of strongly acid urine, dark-brown in color and containing uric acid salts and earthy phosphates, was drawn off. No abnormal prominence or point of tenderness could be found along the vertebral column, and whilst lying upon her back no pain was felt by the patient. She still had power of motion to a considerable degree, although attended with pain radiating from the sacrum to the thigh of the affected side, while passive motion could be made in all directions. The sensibility in the affected limb was but little disturbed: only on the front and outer side of the left thigh could be noticed any diminution of sensibility as compared with the right. The appetite was good; defecation was normally performed. The patient during the eleven days following her admission was daily catheterized, and while in a state of rest was quite comfortable; but on the 22d of the month an attack of febrile symptoms came on, the temperature rose, the pulse reached 120 beats in a minute, and on the 25th an eruption characteristic of a mild attack of varioloid showed itself. She was transferred to the smallpox wards, and on the 1st of October returned again, having passed through a light attack of varioloid. At this time her condition was much more unfavorable than upon admission. Over the sacrum there was a bed-sore of considerable size; she had lost flesh, and the loss of motion of the left leg was complete; even passive motion induced intense pain. From the crest of the ilium down to the lower third of the thigh, sensibility was completely lost; on both surfaces of the foot there was slight sensibility. The urine was of a dirty grayish-brown color, alkaline, cloudy; specific gravity 1025; contained the earthy phosphates in increased quantity, and also a considerable amount of mucus and shreds of mucous membrane. In the sediment were discovered epithelium from the bladder, numerous mucus-corpuscles, pus-corpuscles in less abundance, and crystals of the triple phosphates and of urate of ammonia. During the following nine days the patient became gradually worse, with moderate febrile symptoms, failing appetite, the evacuations from the bowels remaining normal. On the night of the 10th of October she had a chill of an hour's duration; the next morning the skin presented a slight icterode hue; the paralyzed limb had entirely lost its sensibility, and the bed-sore was much increased both in depth and in extent. Two more chills followed, the surface of the body and the conjunctiva became of a lemon color, and on the afternoon of the 12th the patient died. At the autopsy, an examination of the spinal cord revealed the following:

The spinal cord was anæmic, somewhat œdematous; the roots of the first two sacral nerves, even up to the intervertebral ganglia of the left side, were surrounded by a round mass of connective tissue of a grayish-red color and rather larger than a bean in size. These masses of connective tissue were intimately united with the dura mater, which at these points was thickened and pale, and under the microscope they showed the characteristics of fibrous sarcoma.

In this case the spinal cord, so far as its texture was concerned, remained entirely unaltered, and the symptoms, whether the tumors took their origin from the dura mater or from the roots of the first two sacral nerves, must be accounted for entirely by the compression and atrophy of the nerves themselves.

THE RESTORATIVE FORCE OF NATURE IN DELIRIUM TREMENS (by Ely Van de Warker, M.D.: *N. Y. Medical Journal*).—Dr. Van de Warker commences his article by stating that, although the literature upon this subject is extensive, the profession, so far as treatment is concerned, with the exception of blood-letting, stands where it did in the old days of the three-bottle men. The use of chloral he looks upon as but a new method of meeting old indications, and he feels confident that accidents will occur from its administration if used in this disease.

The doses of opiates given he regards as dangerous, and thinks that the state of the system in this disease should not be designated as a tolerance of narcotics so much as a resistance of their effects; and as a possible explanation of the fatal result sometimes met with even in uncomplicated cases of delirium tremens, he suggests the rapid depression of the vital powers following large doses of narcotics.

Insomnia he looks upon as but a symptom, and thinks that the theory that if sleep is induced the disease is cured is erroneous, inasmuch as the muscular tremors and the hallucinations, though modified in form, may continue after the patient has slept. He divides cases of delirium tremens roughly into two classes: the first including persons habitually temperate who have the disease as a result of sudden excess, and the second containing those who are victims of long-continued excess, which must result in serious changes of the nerve-centres. In the first class insomnia is the most marked symptom, sleep is usually readily induced, and a cure speedily follows. In the second class it is almost impossible to procure sleep in the early stages, the mania is most active, and the tremors are marked. In these cases the insomnia is but a symptom of a grave pathological condition, and narcotics are of but little effect until after two or three days the morbid condition amends and sleep is procured either spontaneously or by a comparatively mild dose of an opiate. His remarks are intended to apply with more directness to this last class of cases. Dr. Van de Warker has treated several uncomplicated cases simply with Epsom salts or pil. cath. comp., using no narcotics whatever, and the results observed have been favorable: he noticed particularly the rapid convalescence of the patient, there being no period of prostration following the attack, and but little impairment of the digestive function.

ALCOHOL FROM ICELAND MOSS.—We learn that alcohol is made in St. Petersburg and the northern provinces of Russia from Iceland moss, and that this branch of industry has become quite extensive. In Finland, Archangel, Pskow, and Novgorod, brandy and alcohol are manufactured from the mosses and lichens growing there. The manufacture of lichen and moss spirits began in Sweden, and from there went to Finland. At the last Russian Industrial Exhibition specimens of the alcohol were exhibited which were made in the distillery at Wincilas and from the Lewin manufactory in the city of Borgo, as well as from the factory of Zadler and of Count Trabirki in St. Petersburg. German, English, and French manufacturers were well pleased with its quality. In Northern Russia it is said that this branch of industry brings in a net profit of 100 per cent., and in the interior countries 40 to 100 per cent.—*Druggists' Circular.*

PHILADELPHIA
MEDICAL TIMES.
A WEEKLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

The Philadelphia Medical Times is an independent journal, devoted to no ends or interests whatever but those common to all who cultivate the science of medicine. Its columns are open to all those who wish to express their views on any subject coming within its legitimate sphere.

We invite contributions, reports of cases, notes and queries, medical news, and whatever may tend to increase the value of our pages.

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EDITORIAL.

POPULARIZING SCIENCE.

ONE of the distinctive features of the present decade is the immense impetus which has been given to the popularization of science.

In our leading daily papers learned correspondents discourse of geology and the flora of the lands they visit; copious reports of the meetings of savants are served up with the spiciest of literary condiments; and even the weather has technical editorials written concerning it. A department of science in our first magazine, and at least one popular serial devoted entirely to it, mark also the setting of the current. Even art is deriving inspiration from the dry bones of anatomical science; and M. Griset, a French artist, has given us some capital sketches of the pre-historic glory of man. One of these water-colors, entitled "The Neanderthal Man," represents our illustrious forefather with a profile just sufficiently suggestive of that of the Neanderthal skull to be very amusing, and a figure which has doubtless been conceived from reading Huxley's "Man's Place in Nature." The diminutive thumb, the monkey-like grasp of the stone hatchet, the elongated heel, the hirsute skin, and the short, slender leg, scarcely hiding beneath the scrawny skin the platycnemic tibia, are all there in their pristine ugliness.

Shades of art and science! even this sketch has not escaped the rage of the spoiler. In one of our illustrated papers it has recently been popularized,—every distinctive feature omitted, every characteristic overlooked, the whole point of the matter rasped away. So it is always when any but men of real scientific taste and knowledge attempt to popularize. But, worse than all, out from this reproduction of Griset's really sparkling sketch stares at us the unmistakable modern Esquimaux dog!

Verily, Science, though she may be courted, has, like the woman of old, suffered many things from many physicians.

And now the theatrical folk must needs be on the top of the wave, and add a piquance to the classic "Tempest" by introducing the Neanderthal Man in the character of Caliban. Despoiled of all his ape-like features save his hairy skin, he has had given him the face of an Indian and the canine teeth of a boar, and has been made of such nature that we might, as was said by a Massachusetts Senator of a certain statue, all fall down and worship without sin; for surely this Caliban is like nothing in the heavens above, in the earth beneath, or in the waters under the earth. Moreover, this bizarre figure is in direct opposition to the spirit of the text, where Caliban is frequently spoken of as compounded of fish and man,—as Trinculo says, "being but half a fish and half a monster,"—and as having "a very ancient and fish-like smell." To hades with such scurvy monsters! May they

> "all be turned to barnacles, or to apes
> With foreheads villanous low."

MEDICAL FELLOWSHIPS.

AMONG the many truths told us by Mr. Tyndall during his recent visit to this country, none were more needed to be told than those referring to matters of education. He said we needed above all things a little more pure science. The pursuit of truth for its own sake, especially that form of it embodied in the inductive sciences, would be, in his opinion, a saving clause to the corrupt tendencies everywhere seen in our public affairs. How far the so-called science of medicine may be included in the stricture of Mr. Tyndall may be a subject concerning which there is doubtless a great variety of opinion; but we believe that there need be none upon at least one phase of the question, viz., that very many individuals of influence in the profession have no sympathy with abstract scientific truth. If they do not entertain an outspoken contempt for the medical scientist, they look upon him as a fanatic to be good-humoredly indulged. Paltry encouragement is given to the few who devote themselves to research,—meeting with indifference and receiving warning for their temerity, where they

have a right to expect approval. "Leave off Science," says Nestor, "or you will be as poor as poverty!" and, unfortunately, Nestor is right. Magendie has made us his confidant on this subject, and this is what he tells us: "I had at one time but five sous a day to live upon, and a dog to keep besides." And we recall the story of Leuret, who, while a soldier, sold his rations that he might buy candles and books, only to die of over-work and of insufficient food. We know all this; and yet in every age we will have our Magendies and our Leurets. Would it not be wiser for Nestor to stop lecturing the votary, and use his influence towards securing him a decent livelihood?

It reflects no credit upon the profession that while in other departments of science fellowships or endowed professorships support the student, there are none in medicine. Were the medical scientist to cultivate his speciality with the same tenacity of purpose that marks the careers of his collaborators in other departments, he might earn, perhaps, his five sous a day, and be thankful for so much.

It would not be a difficult matter to endow several first-class fellowships in connection with our medical schools, to encourage research, particularly in anatomy, physiology, and therapeutics. These would have great influence in raising the standard of teaching, improving our reputation as scientific observers abroad, and in every way resulting to the advantage of those concerned. Cannot something be done in this direction by bringing the subject before the notice of those gentlemen whose munificent endowments to our charitable institutions we are so often called upon to record, or by inviting the attention of the alumni of our different schools to its importance?

MR. ERICHSEN'S LATE ILLNESS.

IT will be recalled by our readers that we announced a few weeks ago the serious illness of Mr. Erichsen, caused by an injury sustained in performing a surgical operation. From a letter dated London, August 11, just received by one of his friends in this city, and from which we subjoin a few extracts, it will be seen that his health has been fully restored much sooner than had been anticipated by his professional advisers:

"I am thankful to say, and I am sure that you will be pleased to hear, that I have quite recovered from my recent severe and serious illness, and that I am feeling stronger and in better health than before its occurrence."

Mr. Erichsen's illness, which came so near proving fatal, arose from an operation-wound while overworked and tired out by the labors of a long winter. He frayed the skin of the *left* index finger in tying sharply with compressed whip-cord a portion of the stump of a tongue which he had just excised for epithelioma. This slight injury was followed by extensive and intense inflammation of the hand and of the lymphatics of the arm, followed by general blood-poisoning, with metastatic intra-pelvic abscess and deposits in the *right* hand and left shoulder.

We congratulate Mr. Erichsen upon his rapid recovery; and we are sure that every member of our profession will cordially unite with us in wishing him renewed health and increased prosperity.

WE have long thought that those architects who make a speciality of ventilation have a hard lot of it. What with the inherent difficulties of the subject, the stupidity of some owners, and the confident half-knowledge of others, their trials must be many. According to the *British Medical Journal*, a new difficulty has arisen in the London courts in the persons of the high dignitaries the judges themselves, although it is stated that it would be difficult to suggest anything more ingenious and complete than the modes of ventilation practised at the Westminster courts, or to devise a more intelligent and careful surveillance.

"The problem, of course, is to change the contained air sufficiently to prevent it from becoming loaded with the products of respiration. It is possible to ventilate adequately the smallest space into which a man can be crammed, by producing sufficiently rapid currents of air; and means are at hand, in some of the courts, for blowing the judges and jury out of their seats, and carrying the wigs and papers of the barristers floating over St. James's Park. But the toleration of currents of air, or draughts, as they are called, is very limited, both with individuals and with bodies of men. Hence it is found necessary, whenever it is desired adequately to ventilate any building permanently occupied, to allow sufficient floor-space, and apertures of ingress and egress of such size as will give about twelve hundred feet of cubic air for each individual, and will afford facilities for producing a movement of air just sufficient to produce a total change of air about twice an hour. In the courts of law, however, witnesses, jurymen, and public are packed like herrings in a barrel; and to produce anything like the change of atmosphere necessary to afford a pure, cool and respirable air, a whirlwind must be blown through the court. The conditions to be satisfied at present are, in short, impossible. The difficulty is in some cases aggravated by the extreme susceptibility of some venerable members of the bench to anything like perceptible movement in the air. We have seen repeated written orders from Lord Chief

Justice Cockburn to close air-holes, close windows, and shut ventilators; and the rule of the judges is absolute in such matters. The bar and the public must endure the excess of discomfort as well as they can. But even where such susceptibilities do not exist, the present courts are so ill adapted to receive the crowds who are often packed tightly into them—not always the most dry, savory, and well-washed crowds—that it is impossible to ventilate them adequately without driving through them, while the courts are sitting, the four winds of heaven; and this is not to be thought of."

IN our miscellaneous column will be found an editorial written by that venerable apostle of gymnastics and physical culture, Dr. Dio Lewis, which, although decidedly and amusingly shrieking in its tone, has some force and truth in it. In acknowledging this, it ought, however, to be distinctly stated that the picture of the suffering caused by vivisection is excessively overdrawn, and the asserted frequency of its practice exaggerated. The number of the profession who have ever practised vivisection is in reality very small. We do think, however, that the practice of it by students of medicine, except under competent direction, should be discouraged by the professors. The best remedy for its abuse would be the affording of the necessary direction; and hence, as a means of humanity, we hope all our colleges will soon have attached to them physiological laboratories, where the young working-power now lost may be turned to good account.

After all, it is supremely comical to see a public opinion which allows the life of the horse to be slowly dragged out by the ceaseless toil of the street-car or crushed by the spur and goad of the race-course,—which applauds as sport the cruel daily maiming of thousands of birds,—it is comical, we repeat, to see such a public opinion raving against vivisection. The pain inflicted by vivisection is to the pain inflicted by sportsmen as an ant-hill is to the pyramid of Cheops.

IN a somewhat recent number of the *Bulletin Général de Thérapeutique*, M. Dannecy proposes the use of bread made from roasted flour for diabetic patients, instead of gluten biscuit. He asserts that roasted starch cannot be converted into glucose, and that bread made out of the various farinas so torrefied is greedily eaten by patients who have been restricted to the ordinary preparation of gluten until they have become thoroughly disgusted. Moreover, under its use the thirst lessens, and the digestive derangements are markedly ameliorated. The good effect upon the elimination of sugar by the kidneys is at least equal to that obtained by the exclusive use of the classical diabetic diet.

LEADING ARTICLES.

REMARKS ON THE NEW CHEMICAL NOMENCLATURE.

BY W. H. H. GITHENS, M.D.

(Concluded from page 764.)

UNDER the old system of nomenclature, the chemical compounds which were called salts were divided into two groups,—halogen salts and amphigen salts: the former were so called from sea-salt,—sodium chloride,—which was the type. The latter group were supposed to be formed by the union of two binary compounds: thus, potassium sulphate was considered to be a compound of sulphuric acid and potassium oxide. As it is impossible to prove such a theory, it is obviously better to adopt a simpler one, especially as the latter is capable of greater generalization. The new theory gives all of the oxygen to the acid, which then unites directly with the elemental base. Again, absolute acids, like SO_3 and N_2O_5, are known to exert no acid properties unless water be present. Thus the acid becomes possessed of an additional equivalent of oxygen, while the hydrogen acts as a base which is replaced by another element when a salt is formed. Thus, the exact composition of sulphuric acid would be SO_4H_2, of potassium sulphate $HKSO_4$, of sodium sulphate Na_2SO_4, of nitric acid $H_2N_2O_6$ (sometimes written HNO_3), etc.

The anhydrous compounds formerly called acids are now called oxides or anhydrides. The reason for giving the latter name is found in the fact that they may be formed from acids by the abstraction of water. Thus, SO_3 is sulphuric oxide or anhydride, PO_5 is phosphoric oxide or anhydride. In some cases this change gives old names to other bodies, as in the case of the compounds of hydrogen with oxygen.

$N_2'O''$ is now called hyponitrous oxide, formerly nitrous oxide.

$N_2'''O_2''$ is now called nitrogen dioxide, formerly nitric oxide.

$N_2'''O_3''$ is now called nitrous oxide or anhydride, formerly nitrous acid.

$N_2'O_4''$ is now called nitrogen tetroxide, formerly hyponitric acid.

$N_2'O_5''$ is now called nitric oxide or anhydride, formerly nitric acid.

$N_2'''O_4''H_2'$ is the present formula for nitrous acid.

$N_2^vO_6''H_2'$ is the present formula for nitric acid.

The earliest record that I have been able to discover of these ideas is in the writings of Laurent and Gerhard. These gentlemen, with great labor, went over the entire ground, but did not live to reap their reward in beholding its universal acceptance.

Compounds are classed as binary and ternary. Binary compounds are those whose atoms are directly united: they are formed of two substances only. In naming these compounds, the positive or basic constituent is first given, and then the name of the negative, the termination of which is changed to *ide:* thus, sodium chloride.

If the positive element unites with the negative with more than one equivalence, it is indicated by changing the termination of the positive to *ous* or *ic:* thus,

$Hg_2'O''$, univalent mercury and oxygen, form mercur*ous* oxide.

$Hg''O''$, bivalent mercury and oxygen, form mercur*ic* oxide.

Ternary compounds are those whose dissimilar atoms are united by the aid of some third element. Of the bodies thus formed, by far the larger proportion are compounds of oxygen. These bodies may be divided into acids, bases, and salts.

An acid consists of one or more negative atoms united by oxygen to hydrogen, as $\bar{S}—O_4—H_2$, sulphuric acid.

A base consists of one or more positive atoms united by oxygen to hydrogen, as $\overset{+}{K}—O—H$, potassium oxide.

A salt contains a positive atom or group of atoms united by oxygen to a negative atom or group of atoms: thus, $H\overset{+}{K}—O_4—\bar{S}$, potassium sulphate, $\overset{+}{Na_2}—O_6—\bar{N}_2$, sodium nitrate.

The terminations *ate* and *ite* and the prefixes *per* and *hypo* have the same value and uses as formerly.

Acids are divided into *ortho-* and *meta*-acids. Ortho-acids are those in which there are the same number of atoms of oxygen and hydrogen. Meta-acids contain an excess of oxygen. They are formed by taking water from the ortho-acids.

$S^{vi}O_6''H_6'$ is ortho-sulphuric acid.

$S^{vi}O_6''H_6'$ less $H_2O = SO_5H_4$, which is mona-meta-sulphuric acid.

$S^{vi}O_6''H_6'$ less $2(H_2O) = SO_4H_2$, which is di-meta-sulphuric acid.

The hydrogen in an acid is called basic hydrogen: it may be displaced by a more strongly positive atom or group of atoms.

Acids are called mono-basic, bi-basic, tri-basic, etc., according as they contain one, two, three, or more atoms of basic hydrogen. In ortho-acids the basicity is equal to the quantivalence of the negative atom.

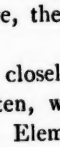
The terms ortho and meta are also applied to bases with the same meanings. The hydrogen in a base is called acid hydrogen, and is displaceable by a more strongly negative atom or group of atoms. The positive or negative condition of hydrogen is only a relative one. If a compound containing hydrogen be decomposed by electricity, the other member of the compound will take its proper position at the positive or negative pole, and the hydrogen will in either case go to the other: so in compounds it acts either an acid or a basic part.

Ternary bodies are also formed with nitrogen as the linking element, and, as in the case of the oxygen compounds, these bodies are divided into three classes, which in this case are called *amides*, *amines*, and *alkalamides*.

An amide contains one or more negative atoms united by nitrogen to hydrogen: $\bar{I}_2—N—H$ is diniodamide.

An amine contains one or more positive atoms united by nitrogen to hydrogen: $\overset{+}{K}—N—H_2$ is potassamine.

An alkalamide contains both positive and negative atoms united by nitrogen: $\overset{+}{K}H—N—\bar{C}l$ is chloro-potassamide.

An ammonia molecule consists of three hydrogen atoms united by nitrogen: thus,  By exchanging a portion of the hydrogen for one or more positive atoms, an amine is produced; if for negative atoms, an amide, and if for both positive and negative, an alkalamide: they are, therefore, said to belong to the ammonia type.

To those who wish to look more closely into the subjects of which we have written, we take pleasure in recommending Barker's Elementary Chemistry: it is thorough, concise, and lucid.

REVIEWS AND BOOK NOTICES.

SIX MONTHS UNDER THE RED CROSS, WITH THE FRENCH ARMY. By GEORGE HALSTEAD BOYLAND, M.D., Ex-Chirurgien de l'Armée Française. Cincinnati, Robert Clarke & Co., 1873.

Perhaps we cannot give our readers a better idea of this interesting little book of nearly two hundred and fifty pages than by transcribing its brief preface. The doctor says,—

"During the siege of Metz, I found many leisure moments, and improved them by taking notes upon passing events, and writing an account of my personal experiences and adventures as Assistant Surgeon-Major in the 'Army of the Rhine.' They were made upon bits of paper; on my shirt-cuffs; in the lining of my képi, etc.: at times on the field of battle; at others while sitting on the floor of the barrack hospital, or reclining in my tent. They are composed without any pretension to literary merit, and are a simple statement of the facts told in my own language: as such I have the honor to place them before the public."

The doctor, we may say, has made good use of his shirt-cuffs: by the way, do they use paper cuffs in France? The book is written in a clear, straightforward manner,—written as though its author knew he had something to say, and simply said it. It is a popular work, containing nothing—so far as we have seen, and we have read most of it—technical, and has simply the interest of a narrative of adventures among most stirring scenes. We think that either in whole or in part it would form an excellent tract for the "Peace Society," showing as it does in a most forcible manner the unspeakable horrors of that hellish incarnation of human passions,—war.

THE CEREBRAL CONVOLUTIONS OF MAN REPRESENTED ACCORDING TO ORIGINAL OBSERVATIONS, ESPECIALLY UPON THEIR DEVELOPMENT IN THE FŒTUS. By ALEXANDER ECKER, Professor of Anatomy and Comparative Anatomy in the University of Freiburg, Baden. Translated by ROBERT S. EDES, M.D. New York, D. Appleton & Co., 1873.

This excellent little memoir is an attempt to lay an anatomical foundation for an accurate physiological and pathological knowledge of the human cerebrum, or, in other words, of an organology of the brain. It is, as it were, a minute topographical survey of the surface in which and under which lie the wonderful thinking and acting powers. From the very nature of the subject, it can have but little interest to the general mass of practitioners,—to any of whom, however, desirous of cultivating his memory we can commend it. To the profound student of cerebral life and disease we think the book will be most welcome. We have not as yet compared it with the cadaver; but, so far as we can judge without this, the work is as accurate as it is minute and thorough in its teachings. It certainly has cost its author a great deal of labor, and as the original has been appreciated abroad we trust the reprint will be here.

Dr. Edes has done his part well, the sentences being free from that German construction so often seen in translations,—arrangements of words which, whilst they may coincide with the Teuton's idea of verbal elegance, are as much out of place in English as the Englishman's "stove-pipe hat" and tight broadcloth dress-suit are out of place in the tropics.

GLEANINGS FROM OUR EXCHANGES.

THE VALUE OF SODIC BROMIDE AS A NERVOUS SEDATIVE (W. Ainslee Hollis, M.D.: *The Practitioner*, August, 1873).—Bromide of sodium, although known to have a therapeutic action analogous to that of the bromide of potassium, has lately somewhat fallen into disuse, while the latter salt has been recommended as a remedy for nearly every disease. The bromide of sodium has a pungent saline taste, is freely soluble in water, and forms a colorless solution. Shortly after it is taken into the stomach, a burning sensation is experienced at the epigastrium; this quickly passes off, giving place to drowsiness and sleep, followed by numbness in the extremities, which does not disappear until several hours after waking.

The following cases illustrate its beneficial action in nervous diseases. Fred. B., æt. 21 years, came under treatment for epilepsy, November 13, 1872. From early childhood the attacks had occurred three or four times weekly. He was treated for the first month with thirty-grain doses of bromide of potassium thrice daily, combined with one-third of a grain of extract of belladonna at night. As the attacks diminished but little in frequency, a seton was inserted in the back of his neck; for a short time after this the fits appeared to be less frequent and severe, but, as he complained of lowness of spirits and debility, one grain each of sulphate of iron and sulphate of zinc were ordered to be taken three times daily. This was continued only one week, as the symptoms returned with their former severity. Bromide of potassium was resumed, in forty-grain doses: this, with the addition of succus conii and a fresh seton, composed the treatment up to May 22, 1873, no effect being produced. On the 22d he was ordered three grains of bromide of sodium three times a day; and during the next week he had only two fits. On May 29 each dose was increased to fifteen grains, and on June 5 to twenty grains: in the interval he had several attacks of "petit mal," but no marked epileptic seizures. After this he improved much in general health, and had but one fit. In another case, a boy 14 years old, who had been subject to epilepsy from birth, after subduing the paroxysms by taking ten grains of bromide of potassium three times daily, suffered no return on the substitution of three-grain doses of the bromide of sodium, although he felt much depressed.

In a third case of epilepsy, the fits were checked by taking daily fifteen grains of the salt in three doses; here also general depression was marked. This depression of spirits very frequently accompanies the use of the medicine in a watery solution, and might possibly be counteracted by the administration of a tonic in combination.

In two cases of nervous excitement due to mental anxiety, and in one of epileptic vertigo, small doses of the bromide produced great relief, while in a case of insomnia in an old man it appeared to do harm. We have, therefore, in sodic bromide, where judiciously used, a valuable nervous sedative.

MIGRAINE FROM INJURY TO THE HEAD (*The Practitioner*, August, 1873).—Dr. Douglas Morton offers the following observations, derived from personal experience, in support of the theory of the "neurotic origin" of migraine. His first attack he attributes directly to an injury received on his head in a fall. At the time of the accident he felt no pain, but rather a sensation of being stunned; shortly afterwards his vision became affected so that on directing his attention to an object he could see only the left half of it. Closing first one eye and then the other, he found that the injury to his eyes consisted in destruction of vision in the right halves of both, for with either closed he could see the left halves of objects looked at with the other. He was also unable to select suitable words to express himself, or to pronounce more than one letter at a time, although still able to intelligently follow a conversation. Headache soon set in, and increased rapidly in severity, being associated with nausea and vomiting, on the occurrence of which the disturbance of sight disappeared. The vomiting soon ceased, but the headache remained for some time. After an interval of seven years a second attack occurred: in this symptoms were noticed which had been overlooked in the first, viz., the appearance of a figure, trembling in space, apparently suspended a few feet before the eyes, and a sensation of numbness in the right cheek and the right side of the

tongue, which came on with the headache and after the optical phenomena had disappeared. In each of his subsequent attacks the symptoms were repeated almost exactly.

Dr. Morton remarks that he has been unable in every instance to connect an attack with any deviation from his usual mode of life, and that, while frequently suffering with headache due to digestive disturbance, his *sick* headache was distinct in the peculiar grouping of its symptoms and in the obscurity of its etiology.

A cup of strong tea or a glass of sherry wine taken at the outset of the affection has produced relief. The best remedy, however, in the author's experience, is guarana: several cases have been reported in which great benefit was derived from this drug.

SLIGHT POISONING FROM THE MEDICINAL USE OF PHOSPHORUS (Dr. Anstie: *The Practitioner*, August, 1873).—While it has been proved that there are many patients who will bear much larger doses of phosphorus than those generally used, the following case shows that instances may be met with in which there is a greater susceptibility than usual to the poisonous influences of the drug.

A gentleman, aged 33, first applied for treatment in May, 1872. He had been subject from boyhood to periodical attacks of migraine, always preceded by vertigo and attended with vomiting; the latter occurring while fasting, and consisting of an acid liquid. In December, 1871, though he had a marked attack of sick headache, there was no vomiting, and the disease became more like ordinary neuralgia. The remedies which had so far been employed were quinine and iron, with strychnia and arsenic, the latter doing most good. The treatment adopted in May, 1872, was a course of arsenic and cod-liver oil, with an increased quantity of food; he was also advised to confine himself less strictly to business. When seen again, one year afterwards, he had improved in general health, but, as the neuralgic tendency still remained, he was directed to take, instead of the above prescription, a pill containing gr. $\frac{1}{30}$ of phosphorus three times daily. These he took from the 5th to the 12th of May, but during the last two days suffered from a constant and increasing burning sensation at the epigastrium; his urine became dark, and was found on examination to contain both albumen and blood, but no casts. The nervous symptoms had increased, the pain being less neuralgic and more continuous than before, with exacerbations each morning and evening, whereas formerly there had been only monthly paroxysms of pain. On May 14, after two days' rest from phosphorus, the renal and gastric symptoms having disappeared, he took, an hour before the morning exacerbation of pain was expected, five grains of quinine, and, singularly enough, never had any return of pain. From this time he steadily improved, though medical treatment was not resumed.

It might be supposed that the single dose of quinine produced the cure: he had, however, been previously saturated with it without benefit, and unless some powerful impression had been made upon the nervous system by the phosphorus, it is not probable that the quinine would have done any good.

The burning pain in the stomach, with the temporary hæmaturia relieved as soon as the medicine was discontinued, would seem to show that there was phosphorus-poisoning in this case. Thus it is possible that a patient may suffer slight degrees of phosphorus-poisoning from less than three-quarters of a grain in minute doses distributed over seven days. Such cases must, however, be quite exceptional.

A NEW REMEDY FOR DYSENTERY (*Canada Lancet:* by William Kerr, Surgeon).—Twelve years ago an accidental circumstance led Mr. Kerr to attempt an improvent in the treatment of dysentery. Commencing with camphor and henbane added to opium, he came to the conclusion that the most efficient combination was one of opium, henbane, hemlock, stramonium, and digitalis. Although this as a rule was satisfactory, still failures sometimes occurred; and, concluding that some plants not found in the officinal list might possess efficacious properties, he began a series of experiments with some of the plants indigenous to Canada, not found in the Pharmacopœia. Sium lineare supplied the place of hemlock, this latter being found sometimes to cause pain in the bowels, while the former gave relief, and dulcamara supplanted henbane, being found to act more beneficially in the combination. The combination finally employed contained the following ingredients: opium, stramonium, dulcamara, digitalis, Sium lineare, Cicuta maculata, and Conio-selinum Canadense, the first four being officinal, the remainder non-officinal. All these are more or less narcotic, while some possess diuretic properties.

The combination without opium is slightly aperient, improves the appetite, promotes sleep, and tends to heal ulcerations of the mucous membranes. The office of the opium in dysentery is only to check the frequent motions of the bowels, the curative power being due to the other ingredients. In infants, and with some adults, digitalis does not act favorably, and in its place squills is substituted. Of either digitalis or squills but half a part is used; the other constituents are used in the proportion of a full part; the portion of the plant used is the leaf, excepting of course the opium and squill. The dose for an adult is six and one-half grains. This formula has been accepted after a series of trials extending over five or six years, more than thirty plants having been experimented with. The combination has been in use for seven years, and the concurrent testimony of several physicians as to its efficacy is brought forward. It has been employed not only in Canada, but also in other latitudes, in the Southern States, on the west coast of Africa, etc., and there is a remarkable uniformity in the testimony of all who have employed it. The combination has also been used with advantage in chronic dysentery and cholera infantum, and in some cases of summer cholera. The relief given is usually marked after the first few doses, and a cure in most cases of dysentery was attained in a week. From its success in so many severe cases of dysentery, summer cholera, etc., Mr. Kerr suggests the applicability of the combination to that still more terrible disease, Asiatic cholera.

MISCELLANY.

VIVISECTION.—Of all the chapters in the history of my profession, no other makes one breathe quick, and the cold sweat start, like that of vivisection. Perhaps my younger readers may not know what vivisection means. The dissection of an animal while alive for the purpose of making physiological investigations. With cutting, and burning with fire and acids, with starvation and thirst, it is possible to make the sufferings of a dog, for example, during his week or month in the physiologist's laboratory, something which the imagination would find it difficult to grasp. Then consider the number of dogs, and other animals, which physiologists have tortured to death under pretence of scientific investigations. That eminent physiologist, but indecent savage, Spallanzani, lived for many years in the midst of a hell of cries, yells, groans, shrieks, and

moans, proceeding from thousands upon thousands of animals undergoing his experiments. I ask my medical brethren what advantage to science came of it all? I have been a student of physiological researches and discoveries, and I affirm that of the myriads of helpless creatures that have been tortured in this way, not one in a million has made the least contribution to science. A great intellectual genius, like one of the Bells, or, perhaps, Brown-Séquard, reports an experiment upon some animal, with his deductions. Forthwith an army of brainless imitators get their dogs and begin. Of course there is not the least probability of any good coming of it all, but it has a scientific appearance. The poor helpless creatures meantime, all day and all night, suffer on, while the would-be physiologist makes notes, which in due time he will inflict upon some medical society, and, though nobody will get a single valuable suggestion, a few of the more brainless of the members will fancy that Dr. —— is, somehow, a scientific investigator, while the investigator himself rests his weighty head on his hand and sighs to think that he is one of the great physiological explorers. Hundreds of thousands of medical men have practised vivisection. Not half a score of them have contributed an idea to physiology. The boys in Harvard Medical College get the fever of vivisection every winter. They read in the journals that some German physiologist has tried this or that experiment upon a rabbit or a dog, perhaps an experiment which makes one's heart stop to read about, and these youngsters set about starting their inquisition. About two months ago, one of the young men from Harvard told me of some experiments the vivisectionists of the class had been making; and I honestly declare that I cannot recall that description without a shudder, even at this distance. I trust they will try next winter the law against cruelty on those Harvard vivisectionists.

Go and ask the eminent physiologists among the professors in Harvard, and they will tell you exactly what I tell you of the usefulness of vivisection.

Among the Romans, a gladiatorial show in which some horrible thing did not occur was regarded as a tame fizzle. The savage is ecstatic only when the tortures of his hapless victim are fiendish. Down in the animal nature of many a civilizer there is not a little of this passion for the horrible. It is this which gives zest to vivisections.—*To-Day.*

FRECKLES.—For the benefit of young persons afflicted with freckles, we would inform them that powdered nitre, moistened with water, applied to the face night and morning, will soon remove all traces of them.—*Druggists' Circular.*

WOMEN STUDENTS AT ZURICH.—The Russian decree relative to women students at Zurich has produced great excitement in that town. All the newspapers are unanimous in condemning the arbitrary conduct of the Russian government in the matter, though several of them admit that the Russian women students often behave in a manner discreditable to their sex. One of the professors of the university of the town observes, in a letter to the *New Zurich Gazette*, that the expulsion of the Russian women from the university will probably be followed by a large increase in the number of the women students from other countries, as German, French, and English women have hitherto been deterred from going to Zurich for their education by the improper behavior of the Russian women who attend the lectures there. A correspondent of the *Cologne Gazette* asserts that upwards of one-half of the Russian women students at Zurich live disreputably, and that many of the Swiss families in the town have consequently refused to receive them in their houses. That some belong to secret political societies is also a matter of notoriety: one of them even acted as vice-president at a "red" meeting of working-men. The Russian women students have now decided, after some stormy meetings, that all but two shall leave Zurich next term, and proceed for the completion of their studies to Paris, Leipsic, Munich, and Heidelberg.—*Medical Press and Circular.*

EMOTIONAL INSANITY.—At a recent meeting of the New York Medico-Legal Society, David Dudley Field, Esq., in discoursing upon "Emotional Insanity," concluded as follows:

"Children under the age of discretion, idiots, and imbeciles are not within the discipline of criminal law.

"The mental unsoundness of other persons, commonly designated as insanity or mania, is in itself, or is attended by, disease of the brain, so that no heat of mere passion, and no degree of mere frenzy, can in any just sense be pronounced insanity by either of the professions.

"That neither perceptional nor emotional insanity by itself, nor both together, can be accepted as excuse for criminal responsibility.

"That intellectual or volitional insanity absolves from criminal responsibility when, and only when, the reason has lost either the power of choice or the power of controlling the will.

"That in every case of acquittal on the ground of insanity the defendant should be forthwith placed in a lunatic asylum, and there kept until it is proved that he is restored to such a state of sanity as to remove all apprehension of a recurrence of the disease.

"That the present gradation of punishments is unsuited to the present condition of medical learning, and a change is required which shall make the law punish not only according to the harmfulness of the outward act, but according to the quality of the inward spring of action."

GORDENIO.—William Gordenio was the first person upon whom the degree of Doctor of Medicine was bestowed. He received it from the college at Osti in 1320. —*Canada Medical Record.*

KEOKUK boys exhibit their courage by buying half-ripe watermelons and eating them in the shade of bulletin-boards posted over with cholera-medicine advertisements.

EXERCISES ON ANÆSTHESIA.—We find in the *Buffalo Medical Journal* the following curious programme of a public lecture on Anæsthesia, lately delivered in New York:

"*Order of Exercises.*—Organ Voluntary. History of Anæsthesia, Dr. J. Marion Sims. Chemistry of Anæsthetics, Prof. R. Ogden Doremus, M.D., with Experiments. Practical Application of Anæsthetics in Surgery, Professor Frank H. Hamilton, M.D. Address by Rev. Henry Ward Beecher. Organist, Mr. Walter. Mayor Havemeyer will preside. For this occasion Mr. William Steinway has kindly tendered the use of Steinway Hall, Wednesday evening, May 21, 1873, at 8 o'clock."

It is a curious illustration of the difference of "the point of view," that this display was promoted by a number of the most eminent physicians and citizens of New York, and evidently suggests to their mind nothing which savors of the ludicrous or unseemly. No one would be bold enough on this side of the water to attempt what appears to us as incongruous a series of "exercises" as were ever presented on the boards of a theatre.—*British Medical Journal*, July 19, 1873.

"MRS. WINSLOW'S" SOOTHING SYRUP.—In the City Registrar's report of Providence, Rhode Island, for July, Dr. Snow says:

"There were two deaths in July from poisoning: one was from an overdose of morphine; the other from Mrs. Winslow's Soothing Syrup. There ought to be some power to stop the sale of a rank poison like Mrs. Winslow's Soothing Syrup under the false pretence that it is perfectly safe."

WE are glad to hear that the young lady upon whom Dr. Robert Battey, of Rome, Georgia, performed the extraordinary operation called normal ovariotomy, a year ago, has not only survived, but is in most excellent health. Her former pains have entirely ceased. Curiously enough, she had a flow from the womb, resembling the menstrual flux, every two to four weeks, up to a few weeks ago, since when she has seen nothing of it. —*Boston Medical and Surgical Journal.*

THE *Univers* announces with great joy that Mr. Darwin was rejected by 26 against 6 votes as corresponding member of the French Academy of Science. The six votes were given to him by the "friends of the Apes."

HOSPITAL APPOINTMENT.—Dr. J. Ewing Mears has been appointed surgeon to the St. Mary's Hospital, vice Dr. A. D. Hall, resigned.

DR. WILLIAM PEPPER has removed to 1811 Spruce Street.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM AUGUST 19, 1873, TO SEPTEMBER 1, 1873, INCLUSIVE.

WRIGHT, J. P., SURGEON.—Granted leave of absence for thirty days. S. O. 178, Department of Dakota, August 13, 1873.

BROWN, HARVEY E., ASSISTANT-SURGEON.—To proceed to Key West, Florida, and report to the commanding officer, Department of the Gulf, for assignment to duty. S. O. 170, A. G. O., August 22, 1873.

KINSMAN, J. H., ASSISTANT-SURGEON.—Granted leave of absence for sixty days. S. O. 67, Military Division of the Missouri, August 11 1873.

MAGRUDER, D. L., SURGEON.—Leave of absence extended thirty days. S. O. 171, A. G. O., August 23, 1873.

KNICKERBOCKER, B., ASSISTANT-SURGEON.—Leave of absence further extended thirty days. S. O. 173, A. G. O., August 27, 1873.

NOTSON, WILLIAM M., ASSISTANT-SURGEON.—Assigned to duty at Fort Gratiot, Michigan. S. O. 106, Department of the Lakes, August 26, 1873.

CARVALLO, CARLOS, ASSISTANT-SURGEON.—Assigned to duty at Fort Mackinac, Michigan. S. O. 106, c. s., Department of the Lakes.

KING, W. H., ASSISTANT-SURGEON.—Assigned to duty at Newberry, South Carolina. S. O. 151, Department of the South, August 26, 1873.

RETURN OF DEATHS AND INTERMENTS IN PHILADELPHIA FROM JULY 27 TO AUGUST 30, 1873.

DISEASES.	Adults.	Minors.	DISEASES.	Adults.	Minors.
Abscess	5	1	Fever, Brain	1	...
Albuminuria	2	...	" Congestive	3	...
Anæmia	...	1	" Gastric	1	...
Aneurism	3	...	" Malarial	2	...
" of the Aorta	5	...	" Nervous	2	...
Apoplexy	20	1	" Puerperal	2	...
Asphyxia	...	2	" Remittent	3	1
Asthma	2	...	" Scarlet	...	7
Burns and Scalds	2	3	" Typhoid	26	12
Cancer	10	...	" Typhus	2	1
" of Liver	1	...	Fracture of the Leg	1	...
" Pancreas	...	1	" " Skull	1	...
" Pylorus	3	...	" " Spine	1	...
" Rectum	1	...	Gangrene	2	...
" Stomach	7	...	Heart Clot	2	...
" Uterus	7	...	Hemorrhage	3	1
" Vagina	1	...	" Bowels	1	1
Casualties	9	11	" Lungs	2	...
Cerebro-Spinal Meningitis	3	18	" Uterus	1	...
Child-bed	3	...	Hernia	2	...
Cholera Infantum	...	397	Hooping-Cough	...	10
" Morbus	22	2	Inanition	3	26
" Sporadic	11	...	Inflammation of Bladder	2	...
Cirrhosis of Liver	5	...	" Brain	11	44
Colic	1	...	" Bronchi	3	9
Compression of Brain	1	...	" Heart	...	2
Congestion of Bowels	...	1	" Kidneys	1	...
" " Brain	17	35	" Larynx	1	1
" " Heart	...	1	" Liver	4	2
" " Liver	...	1	" Lungs	21	19
" " Lungs	3	2	" Peritoneum	12	5
" " Stomach	...	1	" Pleura	1	1
Congestive Chill	1	...	" Stomach & Bowels	20	40
Consumption of Bowels	5	...	" Uterus	2	...
" Lungs	153	21	Intemperance	1	...
Convulsions	2	70	Jaundice	1	3
" Puerperal	5	2	Malformation	...	1
Cramps	...	5	Mania a potu	4	...
Croup	...	4	Marasmus	3	129
Cyanosis	...	7	Measles	...	2
Debility	50	67	Murder	2	...
Diarrhœa	17	14	Old Age	51	...
Diphtheria	...	9	Paralysis	16	1
Disease of Brain	5	3	Poisoning	3	2
" Heart	45	7	Pyæmia	...	1
" Kidneys	8	...	Rheumatism	4	...
" Liver	4	...	" of Heart	1	...
" Spine	1	3	Scrofula	1	3
" Stomach	1	...	Septicæmia	1	...
Dropsy	17	3	Smallpox	...	1
" of Abdomen	1	...	Softening of Brain	9	1
" Brain	...	21	" Heart	1	...
" Chest	3	1	Sore Mouth	...	5
" Heart	4	2	Still-Born	...	72
" Liver	...	1	Suffocation	2	1
" Ovaries	1	...	Suicide	8	...
Drowned	18	7	Sunstroke	6	1
Dysentery	13	6	Syphilis	...	1
Effusion on Brain	2	5	Tabes Mesenterica	1	1
Emphysema of Lungs	1	...	Teething	...	11
Empyema	1	...	Tetanus	4	3
Enlargement of Liver	1	...	Tumors	1	...
Epilepsy	8	2	Unknown	2	1
Erysipelas	1	4	Uræmia	1	...
Fatty Degene'n Kidneys	1	...			
" Liver	1	...			
TOTALS				780	1164